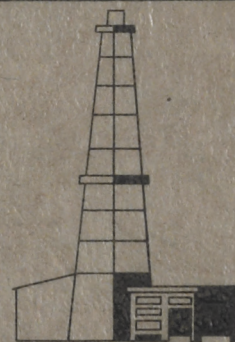


DESK & DERRICK CLUB
OF CALGARY

1956



BANFF
FIELD
TRIP

JUNE
2nd & 3rd

Grant Kimball

NAME



Prairie Provinces Collection

The Desk and Derrick Club is sincerely appreciative of the efforts and work of the many people who have made this field trip possible, and in particular those individuals who have prepared and produced this guide book. We cannot publish a complete list of names of all who have been associated with this project, but the many people behind the scenes may be assured that their work is appreciated and gratefully acknowledged.

We wish to give special recognition and thanks to the following:

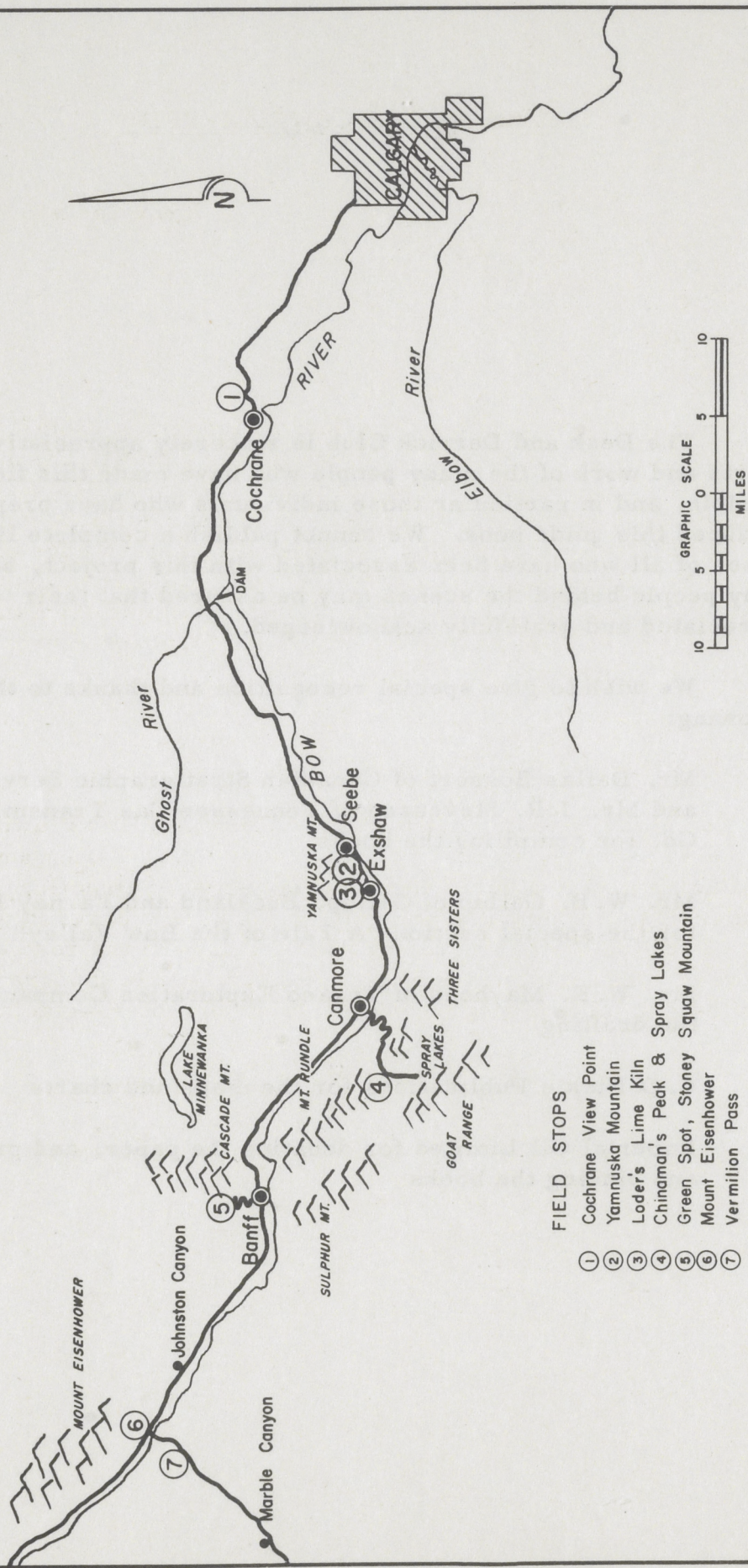
Mr. Dallas Bossert of Canadian Stratigraphic Service Ltd.,
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DESK & DERRICK FIELD TRIP ROUTE

JUNE 2nd, 1956

DESK & DERRICK FIELD TRIP

June 2nd and 3rd, 1956.

Good Morning!

Your itinerary for the 1956 Desk and Derrick Field Trip will follow the valley of the Bow River from Calgary to Mt. Eisenhower, through an area world famous for its scenic beauty. You will traverse the western edge of the Great Plains, cross the Foothills and Front Ranges of the Rocky Mountains, and enter the eastern edge of the Main Ranges at Mt. Eisenhower. Enroute we shall make the various stops shown on the index map, to consider how the geologic formation have been disrupted, and sculptured by erosion to form the scenic grandeur of the Rocky Mountains.

Calgary to Cochrane Hill Viewpoint:

The highway from Calgary to the Cochrane Hill Viewpoint lies on the plains along the north bluff of the Bow River Valley and you will proceed along it in a general west, north westerly direction. For the first ten miles after leaving Calgary the plains are covered with glacial debris. These deposits are the gravels exposed in the road cuts. The irregular glacial terrain is known as knob and kettle topography. After leaving the glacial deposits the road lies on an old pre-glacial plain.

REGIONAL PROFILE

ALBERTA
BRITISH COLUMBIA

Mt. Platero
Cochrane Viewpoint

Stop Number One

ALBERTA PLAINS

FIGURE - 1
Scale - 1" = 9 miles approx.
0 9
CYPRESS HILLS

SURFACE PLAN

L. Minnewanka

BANFF

BOW

PALEOZOIC

FRONT RANGE THRUST

MESODYC

R. VEG

BANFF

Cochrane Viewpoint

TEARTIARY

HIGHWAY

FIGURE - 2
Scale 1" = 3 miles
0 1 2 3 4

VERTICAL SECTION

EASTERN ROCKIES

FOOTHILLS BELT

OUTER FOOTHILLS
AND PLAINS

JURASSIC CRET.

PALEOZOIC

MESOZOIC

Cochrane Viewpoint

TEARTIARY

FIGURE - 3
Scale 1" = 3 miles
0 1 2 3 4

1000000

STOP #1 - COCHRANE HILL VIEWPOINT:

The Cochrane Hill Viewpoint affords a splendid panoramic view of the Bow River Valley, its terraced sides, the old pre-glacial plain above the valley, and the foothills beyond.

We will stop here to point out these features and to discuss the route from here to Yamnuska Mountain.

Cochrane to Grandview Creek:

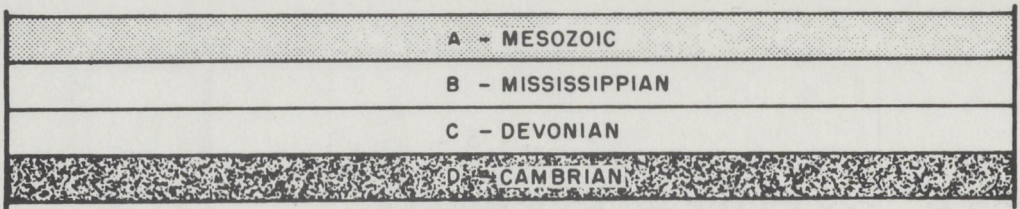
From the Cochrane Hill Viewpoint the highway descends the Bow River Valley bluff to Cochrane on the valley floor. From Cochrane the highway continues in a west, north westerly direction for about six miles to Grandview Creek. Before crossing Grandview Creek the highway crosses the fault which separates the foothills from the plains at this latitude. Unfortunately the fault and associated strata are not visible from the highway. The fault repeats Edmonton strata. From this point to the Yamnuska Mountain the highway crosses the Foothills. For some distance before and after crossing Grandview Creek the hills in view to the northwest are the Wildcat hills. The Wildcat hills are typical of the strike ridge and valley topography of the Foothills, and are formed by repeated, moderate to steep dipping Basal Belly River strata.

Grandview Creek to Ghost River Bridge:

From Grandview Creek to the Ghost River bridge, a distance of approximately 6 miles, the highway continues in a westerly direction, crossing repeated Belly River and Wapiabi strata. About halfway between Grandview Creek and the Ghost River bridge, the highway crosses the Jumping Pound Wet Gas field. Production of wet, sour, gas is obtained from the Rundle limestone some 10,000 feet below the valley floor.

While crossing the Ghost River bridge the Calgary Power Cos' Dam is in view on the left. The Dam is constructed at the junction of the Bow and Ghost Rivers.

WEST



EAST

Figure I

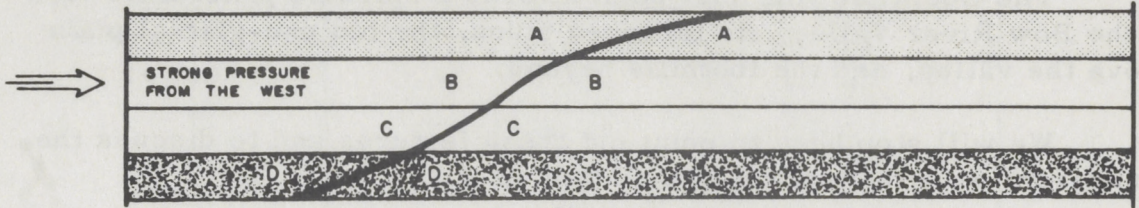


Figure II

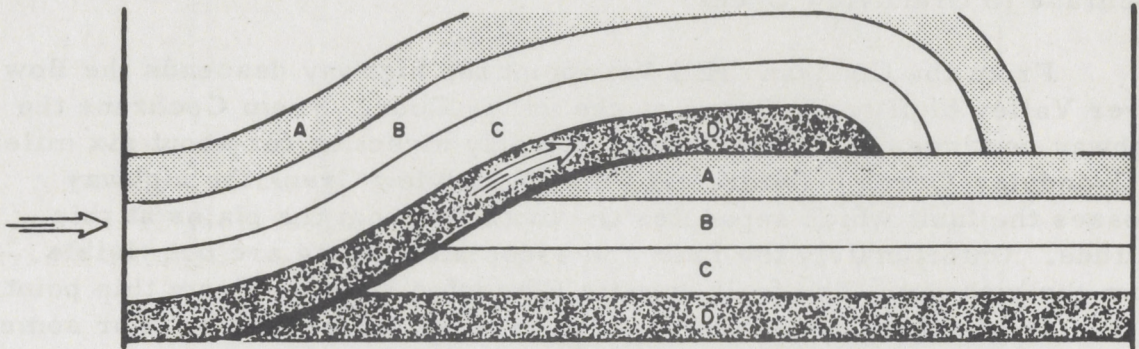


Figure III

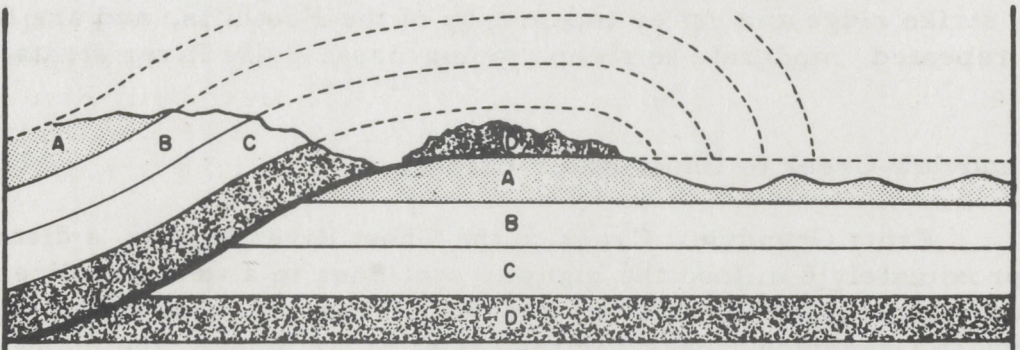
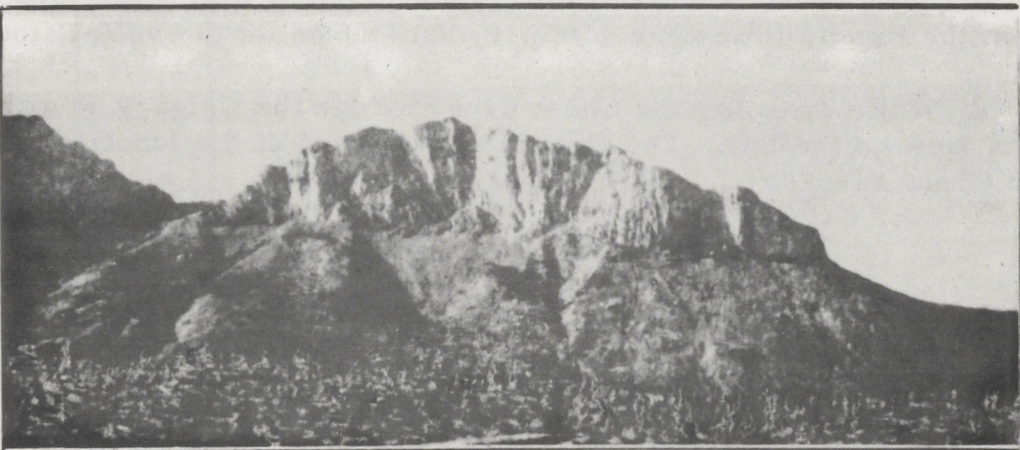


Figure IV



MOUNT YAMNUSKA

Stop Number 2

Ghost River Bridge to Yamnuska Mountain:

From the Ghost River Bridge to Yamnuska Mountain, approximately twenty miles, the highway continues in a westerly, southwest direction, crossing repeated Belly River, Wapiabi, Cardium, and Blackstone strata.

For the first six miles the highway overlooks the Calgary Power Reservoir, and two miles further on passes the entrance to the Stoney Indian Reserve. The Stonies or Mountain Assiniboines are an isolated offshoot of the Assiniboine tribe which inhabited the plains of Saskatchewan and Manitoba. They occupied a limited area on the flanks of the Rockies south of the Yellowhead pass.

About two and one half miles before reaching the Yamnuska Mountain stop the highway crosses the gorge of Beaufort Creek. The gorge is encised in Wapiabi shale. The Junction of Beaufort Creek and the Bow River is the site of the first white settlement in Southern Alberta.

STOP #2 - YAMNUSKA MOUNTAIN:

Yamnuska Mountain forms the eastern edge of the Front Ranges of the Rocky Mountains at this latitude. The Mountain is capped by Middle Cambrian limestones, which are thrust over Belly River Strata. R. G. McConnell of the Canadian Geological Survey first recognized the significance of this thrust fault in 1887. This was the first recognition of low-angle overthrusting in western North America.

We will stop at Yamnuska Mountain to discuss the structure of the mountain and our entry into the Front Ranges.

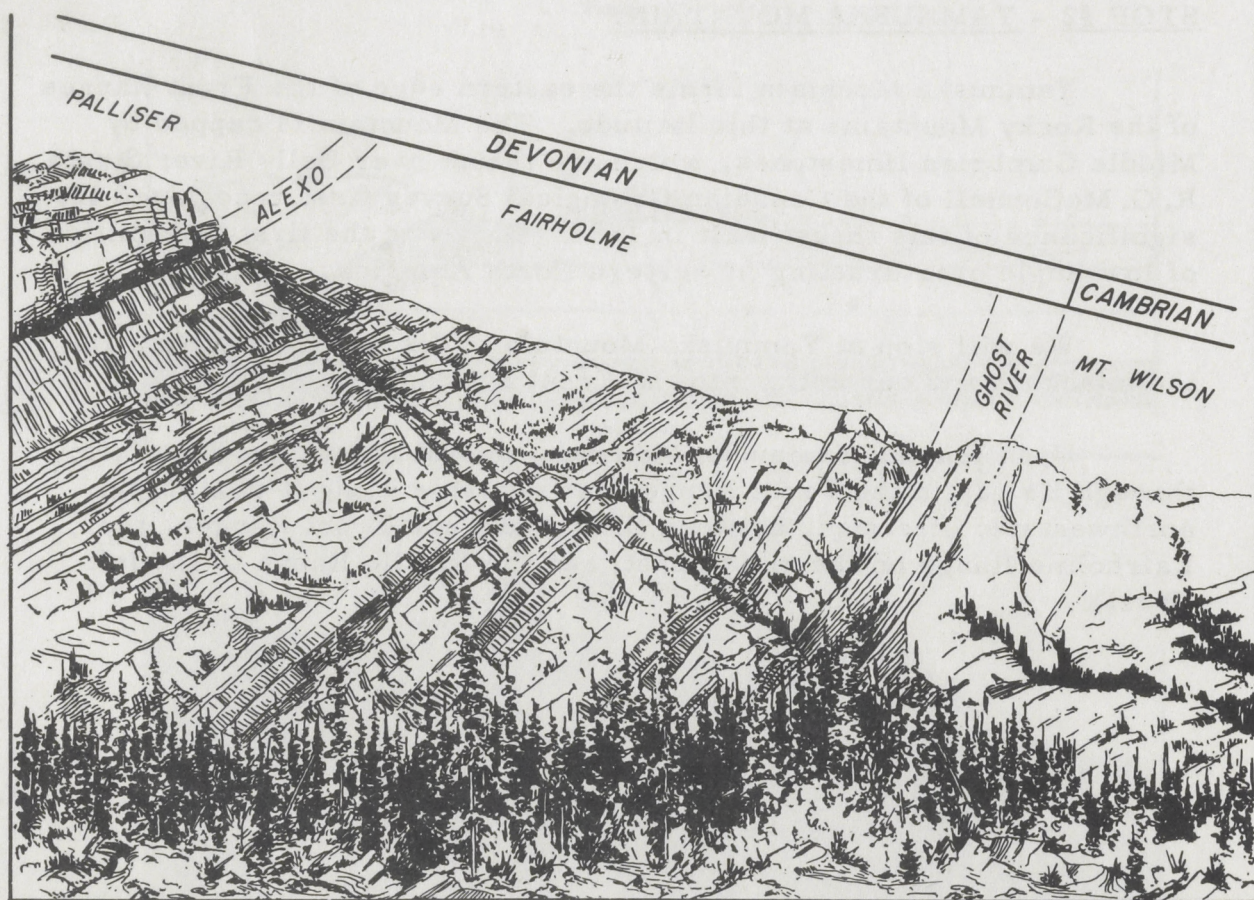
Upon leaving Yamnuska Mountain we will follow the Bow Valley through its gap in the Front Range, and continue along it in a north, northwesterly direction, between the 1st and 2nd Front Ranges, the Fairholme Range on the right (East) and the Rundle Range to the left (West).

STOP #3 - LODER'S LIME KILN - FAIRHOLME RANGE:

(Sketch of Section - Caption - Loder's Lime Kiln, Kananaskis)

The Loder's Kiln section is located at the southeast end of the Fairholme Range on the north side of the Bow Valley at Kananaskis, Alberta. The following geological formations and features can be viewed from this point:

The exposure is capped by the Palliser formation which is Upper Devonian in age. The name Palliser is derived from the Palliser Range which is the extension of the Fairholme Range north of Lake Minnewanka. The Palliser measures 950 feet in thickness at this point and can be traced along the eastern front of the Rocky Mountains. The Strata are very resistant to weathering and form prominent cliffs along the mountain face. The Palliser formation consists of thick-bedded, grey weathering limestones and dolomites which are equivalent to the D-1 or Wabamun formation of the Alberta plains.



LODER'S LIME KILN, KANANASKIS

Stop Number 3

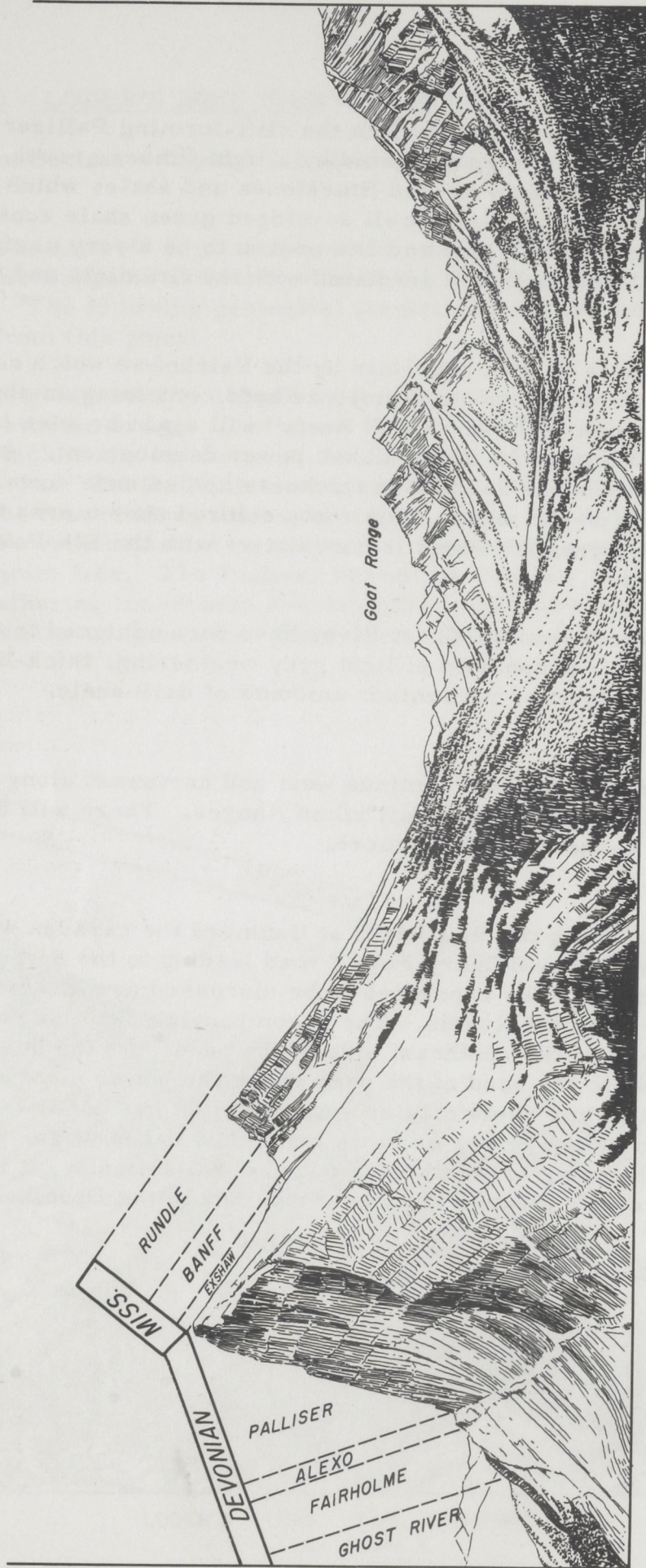
The Alexo formation underlies the cliff-forming Palliser and due to its fractured habit is often obscured by a light timber growth. The Alexo is composed of thinly bedded limestones and shales which are quite often silty. In the Bow Valley a well developed green shale zone usually occurs at the base of the Alexo and has proven to be a very useful marker horizon. The Alexo has been correlated with the Graminia and Calmar of the plains area.

The Alexo is in turn underlain by the Fairholme which consists of dark grey to black dolomite and limestone beds containing an abundance of fossil coral remains. These "Black Reefs" will again be seen in detail in the road cuts leading to the Spray Lakes power development. At this point the Fairholme measures 560 feet in thickness and extends down to the buff weathering bands on the right. This rusty colored zone marks the top of the Ghost River formation which is correlative with the Elk Point formation of the plains.

The strata below the Ghost River have been assigned to the Cambrian system. It consists of light grey weathering, thick-bedded limestones and dolomites with minor amounts of dark shale.

The caravan will now continue west and northwest along the Bow Valley between the Rundle and Fairholme Ranges. There will be a "coffee" break at the town of Canmore.

After crossing the Bow River at Canmore the caravan will continue through the town to the Calgary Power road leading to the Spray Lakes power development. The exposures to be discussed are located on the northwest side of Mount Rundle. The accompanying sketch describes Chinaman's Peak on the southeast side of the pass. As the buses follow the winding road to the head of the pass above the power plant a detailed view of the Fairholme reefs may be seen from the bus windows. It is interesting to note the holes, or more commonly called vugs, which are caused by the leaching or weathering out of coral animals. It is from these porous reefoid masses that oil is obtained in the Drumheller area.



CHINAMAN'S PEAK & SPRAY LAKES

Stop Number 4

STOP #4 - MISSISSIPPIAN - RUNDLE RANGE:

From this vantage point a good view of the Mississippian strata is obtained.

On the extreme left and forming the dip slope of the range is the Rundle formation. This formation is often referred to as the Madison. Only the lower part of the Rundle can be seen from this point and consists of thick-bedded fossiliferous limestones with some shale. It is from this portion of the section that oil and gas is obtained in the Elkton - Sundre area west of Olds, Alberta.

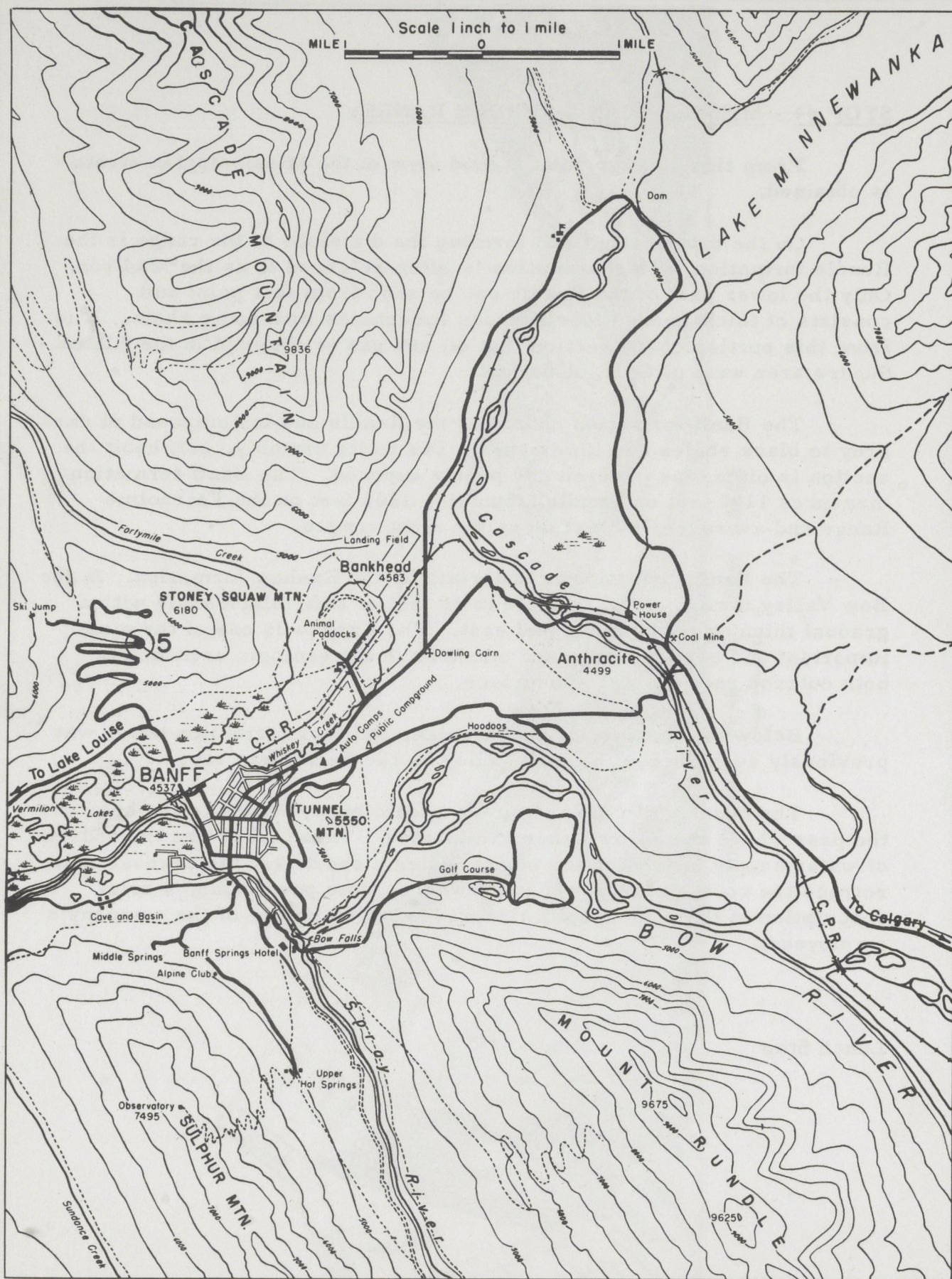
The Banff formation underlies the Rundle and is composed of dark grey to black shales and limestones. Due to its crumbly, soft habit the section is often tree covered and poorly exposed. The Banff formation measures 1100 feet on Rundle Mountain, 1200 feet on the Fairholme Range and averages 700 feet along the front ranges.

The Banff formation is underlain by the Exshaw formation. In the Bow Valley it consists of from 20 to 30 feet of soft, black shale with a gradual thinning to the north and east. The Exshaw is one of the most important and easily recognized markers in the geologic sequence in both outcrop sections and subsurface.

Below the Exshaw is the Devonian, Palliser formation which was previously seen across the Bow Valley on the Fairholme range.

The buses will continue up the scenic Spray Valley to the head of the pass where the Spray Lakes are located. These lakes are the source of water supply for the power plant. After a short stop the caravan will retrace the route to the power plant where, time permitting, a brief description of the plant's operation will be given by one of the company's employees.

Lunch Stop



"GREEN SPOT" (STONEY SQUAW MTN.)

Stop Number 5

STOP #5 - GREEN SPOT - WEST SIDE OF STONY SQUAW MOUNTAIN:

From this point an excellent view of Banff and the Bow Valley is obtained. Outcrops in the road cuts are siltstones of the Spray River Formation (Triassic).

The Green Spot is on the side of Stoney Squaw Mountain, on the road to the Mt. Norquay Ski Lift. From this vantage point an excellent view is to be had of the town of Banff, the Bow and Spray River Valleys, and the 2nd, 3rd, and 4th Front Ranges. These ranges are from left to right, or from east to west: (2nd) the Rundle Range, terminated on the east by Mt. Rundle fault; (3rd) Sulphur Mountain, terminated on the east by the Sulphur Mountain fault. Sulphur Mountain is a continuation of the Goat Range which was visible at the Spray Lakes stop. Stoney Squaw Mountain and Mt. Norquay are a continuation of Sulphur Mountain; (4th) the Borgeau Range, terminated on the east by the Borgeau fault.

As seen from the Green Spot the ranges display the steep scarp faces on their east sides and the dip slopes on their west sides that are typical of front range topography. The scarp faces have a typical profile. The mountain peaks and upper cliffs are formed by Rundle limestone, underlain by more gentle, talus covered slopes formed by the Banff limestones and shales. The intermediate cliffs are formed by the Palliser dolomite, which is in turn underlain by the talus, and commonly tree-covered Fairholme slopes. The dip slopes are held up by the Rundle limestone. The valleys are carved in Rocky Mountain, Spray River and Kootenay strata, which are less resistant and which overlie the Rundle limestone in the fault blocks.

At this latitude the Bow River Valley leaves its position between the 1st and 2nd Ranges and crosses the 2nd and 3rd Ranges to occupy a position within the 4th Range.

The lower slopes of the valleys in the Banff area have been heavily glaciated. The Spray River valley is a fine example of U-shaped glacial valley.

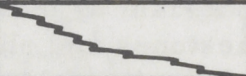
These features will be pointed out from the Green Spot.

Banff Hot Springs

Located on the lower slope of the northwest side of Sulphur Mountain are numerous hot water springs. These springs are best known because of the high temperature of the water, with the Upper Hot Spring and the lower Cave and Basin springs being the most popular.

The upper spring is the highest of the group on Sulphur. Its elevation is 5,200 feet above sea-level or some 600 feet above the town of Banff.

CORRELATION CHART SOUTH-CENTRAL ALBERTA

SYSTEM	SERIES	MOUNTAINS & FOOTHILLS		PLAINS
TRIASSIC		SPRAY RIVER		MISSING
UNCONFORMITY				
CARBONIFEROUS	PENNSYLVANIAN	ROCKY MOUNTAIN		MISSING
	MISSISSIPPIAN	RUNDLE GROUP	MOUNT HEAD	
			LIVINGSTONE	LIVINGSTONE
			BANFF	BANFF
		EXSHAW	EXSHAW	
DEVONIAN	UPPER & MIDDLE DEVONIAN	PALLISER		WABAMUN
		ALEXO		GRAMINIA
				CALMAR
		FAIRHOLME		NISKU EQUIV.
				JEFFERSON
				BEAVERHILL LAKE
		GHOST RIVER	ELK POINT	
CAMBRIAN				

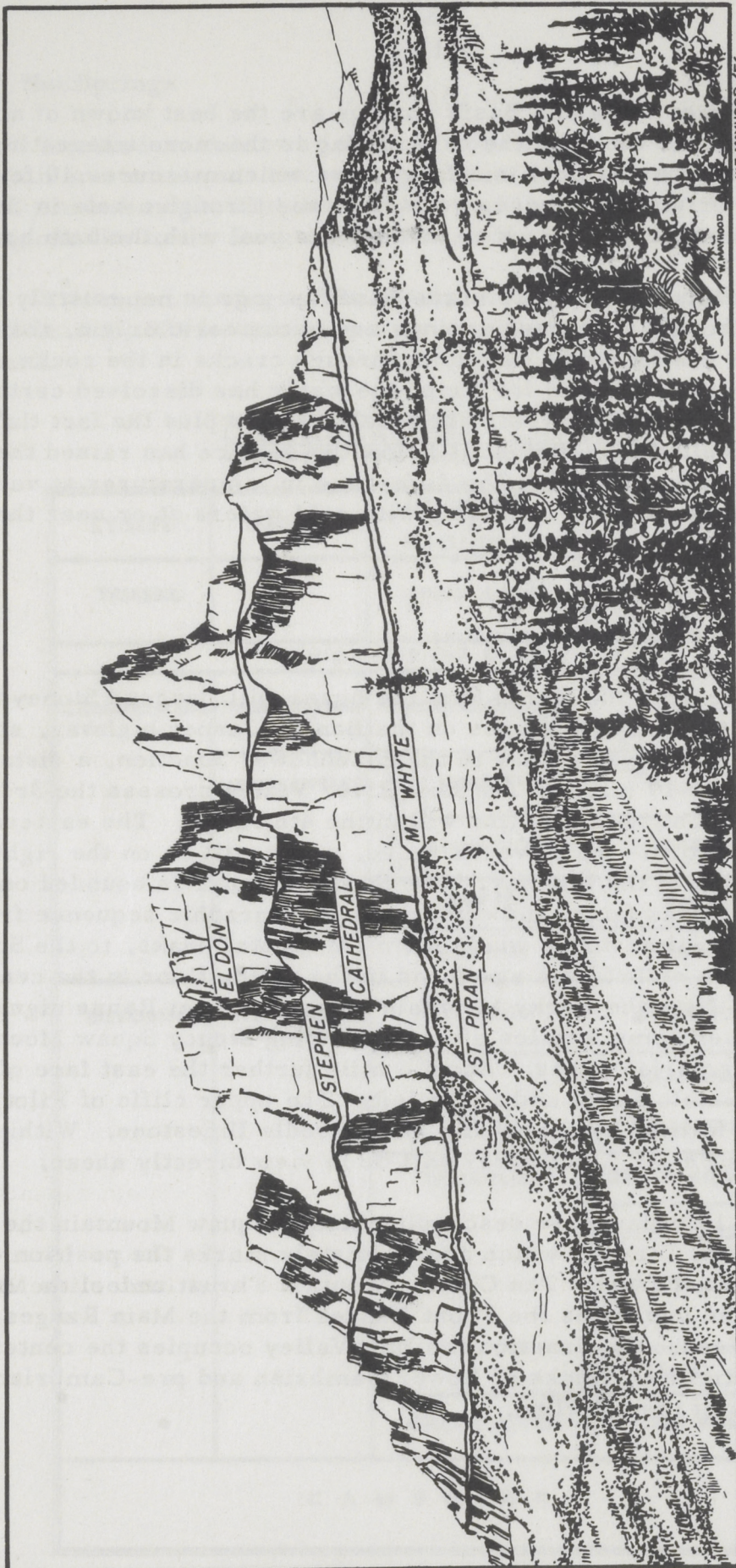
The Lower Cave and Basin springs are the best known of any in the Banff area. Of the two, the cave spring is the more interesting. It rises at the bottom of a pool in a large cave which measures 40 feet by 20 feet. The original entrance to the cave was through a hole in the top but now a passage has been cut to connect the pool with the bath house.

The origin of the water in the Banff springs is not entirely understood. It is thought that these springs are of meteoric origin, that is, surface water has found its way down through cracks in the rocks to reappear as springs. During its "trip" the water has dissolved certain minerals from the rocks. This chemical reaction plus the fact that the water has travelled long distances below the surface has raised the water to high temperatures. The difference in temperatures at various springs appears to be due to mixing with cold waters at or near the surface.

Green Spot to Eisenhower Junction:

After leaving the Green Spot the buses will descend Stoney Squaw Mountain and the route continues on the Banff - Jasper highway, still following the Bow River Valley to the Eisenhower Junction, a distance of approximately 19 miles. The Bow River Valley crosses the 3rd range, and follows the Sawback syncline within the 4th range. The eastern flank of the syncline forms the Sawback range, which will be on the right hand (north east) side of the highway. The Sawback range is bounded on the east by the Borgeau fault, and contains a stratigraphic sequence from upper Cambrian limestones which form the frontal peaks, to the Spray River formation of Triassic age found in the valley floor in the center of the syncline. Note the Rocky Mountain Sheep and Goat Range signs which the route passes some 5 miles after descending Stoney Squaw Mountain point to the Cambrian peaks. About a mile further the east face of Pilot Mountain is visible ahead and to the left. The upper cliffs of Pilot Mountain are formed by nearly flat lying Rundle limestone. Within another half mile Mt. Eisenhower will be in view directly ahead.

About 15 miles after descending Stoney Squaw Mountain the highway crosses Johnson Canyon, which approximately marks the position of the Castle Mountain Thrust. The Castle Mountain Thrust underlies Mt. Eisenhower and separates the Front Ranges from the Main Ranges. From here to the Eisenhower Junction the Bow Valley occupies the center of the Bow River anticline. Rocks of Lower Cambrian and pre-Cambrian age form the core of the anticline.



W.E. MAYHOOD / 56

MOUNT EISENHOWER

Stop Number 6

STOP #6 - EISENHOWER JUNCTION:

From the Eisenhower Junction the stratigraphy of Mt. Eisenhower, as shown in the diagram is well displayed. (Eldon 1500', Stephen 375', Cathedral 775', Mount Whyte 150', and St. Piran 1000'). Mt. Eisenhower is on the eastern limb of the Bow River Anticline, and the Bow Range across the valley to the west is on the western limb of the anticline. The stratigraphic succession in the Bow Range consists of the Cathedral above and the St. Piran below.

The Castle Mountain Thrust, which separates the Main Ranges from the Front Ranges lies beneath Mt. Eisenhower, crosses the Bow River somewhat upstream from Johnson Creek and passes through Copper Mountain to south west across the valley.

From this point the Sawback Range and Pilot Mountain on opposite sides of the Sawback syncline are in view, down the valley, along the route just travelled.

The Eisenhower Junction is near the site of Silver City, a mining camp established about 1880 by prospectors enroute to the Cariboo country. The workings were behind the south east shoulder of Mt. Eisenhower. Recoveries were small and by 1900 only one building remained.

Eisenhower Junction to Vermilion Pass:

Upon leaving the Eisenhower Junction the route turns westward, crosses the Bow River Valley, and follows the Windermere highway into Vermilion Pass.

STOP #7 - VERMILION PASS:

Vermilion Pass lies in the Bow Range, between Boom Mountain on the north west and Storm Mountain on the southeast. Boom Mountain is capped by the westerly dipping Cathedral formation - Storm Mountain, is composed of lower and middle Cambrian on the west limb of the Bow River Anticline. The tree covered slopes east of the base of the mountain are underlain by pre-cambrian. Vermilion Pass affords an excellent view of Mt. Eisenhower.

GLOSSARY OF GEOLOGIC TERMS

Anticline	An Arch or fold in the rocks.
Correlation	The determination of the equivalence in geologic age and position of two or more formations or units in separate areas.
Dip Slope	A slope which is parallel to, and controlled by, the surface of a hard layer of dipping rock.
Fault	A break in the continuity of a body of rock, with movement of one side or the other so that what were once parts of one continuous rock stratum or vein are now separated.
Formation	A set of strata possessing common and similar characteristics. It is also loosely employed for any local and more or less related group of rocks.
Incised	Cut down into, as a river cuts into a plateau.
Knob & Kettle Topography	Topography consisting of a maze of small hills and undrained depressions in haphazard arrangement. The material is predominately glacial till.
Markers	Strata with easily recognized characteristics, such as to make simple their identification in the field.
Overthrust	The lateral pushing of a mass of rock over or upon other rocks; along a thrust fault.
Scarp	An escarpment, cliff, or steep slope along the margin of a plateau.
Strata	Layers of rock, consisting of one or more beds which are more or less similar throughout.
Syncline	A trough, due to folding, in the rock beds.
Talus or Scree	A sloping heap of loose rock fragments lying at the foot of a cliff or steep slope.
Terrace	A Plain, natural or artificial, from which the surface decends on one side and ascends on the other.
Unconformity	Where one formation rests on the eroded surface of a lower one, the two are said to be unconformable and the erosional gap is said to be an unconformity.

A TALE OF THE BOW VALLEY

The choke cherry makes splendid bow wood but the limb or trunk must be unusually thick to provide the proper material, hence the name "Bow River", for in its valley, the choke cherry is numerous and well developed. The more slender growth provided arrows. It was the arsenal of the plains tribes of southern Alberta.

The story of the foothills and mountain portion of the Bow is rather prosaic compared to the "wild west" tale of the lower valley and tributaries. There were two contributing factors to this relative tranquility.

The "Stonies" who have for about 200 years dwelt in our subject area are Assinaboines, a branch of the Sioux. They fled to this area, escaping from a smallpox epidemic. The Civil Government of the Sioux was notoriously ineffectual, except in emergencies. Sitting Bull, the great Civil Chief of the Sioux demonstrated this in his ground work on which the war chiefs based their campaigns against Crooks, Custer and others. So it was with our branch of the Sioux who established themselves on the fringes of the Blackfoot confederacy and yet maintained their independence and identity with little or no warfare other than the customary horse stealing expeditions. These people were the Rocky Mountain Assinaboines. To the early fur traders at Fort Edmonton and Rocky Mountain House, they were the Rocky Mountain or Stony Indians - hence "Stonies".

Occasionally, one runs across accounts of how the natives related to early explorers that they had seen white men before - bearded men from the West. The inference is that these were Russians digressing from their abortive attempt to establish an empire on the West coast. This is probably a tale edited after the fact - it is certainly not substantiated. David Thompson, the geographer and trader, was probably the first white man to visit the region.

In late October or early November of 1786, Thompson with six men (probably Cree), arrived in the vicinity of Calgary, having left Cumberland House in northeastern Saskatchewan "- three and twenty days -" before. He wintered with Saukamappee who was born a Cree and defected from that tribe to become a Blackfoot chief. His defection resulted from a family quarrel. Time has rolled on but certain things have not changed much in the Bow Valley. Buffalo were scarce and the camp moved often in order to make sufficient meat. In addition to these wanderings, Thompson made several exploring trips and probably passed through Turner Valley. He passed this way again in 1800 but only notes that the buffalo were then very numerous - no doubt recalling the hungry winter of 1786-87.

In 1832, the American Fur Company branching out from their capitol, Fort Union on the Missouri, built a fort at the junction of the Elbow and Bow. This establishment was short-lived as Blackfoot fashions took a sudden turn. A young warrior with a blond scalp in the forelock of his warhorse, was "real gone" (Circa 1833).

The Hudson's Bay Company built Bow Fort at the mouth of Bow Fort Creek in about 1834. The Mount Hector Boy's camp borders this site. Here again the Blackfoot finally rendered the place untenable. The only trade was coarse fur. The southern plains people were not interested in trapping fine fur to trade for gingham but would run buffalo to provide robes to be exchanged for powder and ball to kill the men with whom they traded. The law of diminishing returns set in and the Honourable Company abandoned the post that had already cost several lives to maintain. The Blackfeet immediately burned it. Traces of it are still visible on the bench above the junction of Bow Fort Creek and the Bow.

Gentler times were in the offing. The Reverend R. T. Rundle in about 1845, brought Christianity into the valley; Mount Rundle is his monument. Rundle was followed by the Reverend George McDougall and his son, John. Together, they established a mission and trading post, the beginnings of the Morleyville settlement, in 1864. The father perished in a blizzard while hunting buffalo somewhere near the present Highwood Development in north Calgary in the late winter of 1875. His body was found in the spring and he now lies on the grassy slopes overlooking the Morleyville Church which they built. Mrs. McDougall was the first white woman in the valley. Betty-Jane Banks, nee. Ingraham, who recently moved to Ontario, is a direct descendent -- thus the longest residing white family in the area.

The influence of these early missionaries was the second contribution to the "prosaic" story of the upper Bow. Under their guidance, the Stonies traded at Rocky Mountain House and Fort Edmonton rather than at the "Whiskey" forts in the south such as Whoop-up, Stand-off and Slide-out. At the metropolis of Fort Edmonton, the McDougalls saw to it that their people camped on the prairie far out, away from temptation. This prairie is now Stony Plain.

The Stonies signed Treaty No. 7 with the Blackfoot and Sarcee in 1877. It is notable that Peter Erasmus of the Stonies, signed along with Heavy Shield of Blackfoot. It takes a lot of doing to change a plains Indian's name.

Captain Palliser arrived in 1858 with James Hector (later Sir James Hector) his geologist, and travelled considerably in the area between Calgary and Banff during that year and the following one.

While in the vicinity, they headquartered at the site of the Bow Fort, the chimneys of which were then still standing. From there they crossed the mountains and returned, exploring various passes. In 1858 and 1859 Hector explored the Banff area. In the manner of modern tourists he climbed Grotto and Cascade mountains. In the manner of modern geologists he attempted a correlation of the strata in these peaks. He visited "Big Lake" now retranslated to "Minne-wanka". He viewed the Bow Falls and there shot two female mountain sheep which for some reason, made them sick when they ate them that day. Anyone attempting to re-enact this visit would no doubt be sicker. He noted the site of the Cave and Basin and remarked on "--the warm mineral springs--". From his camp on the meadows near the park gates, he noted the beauty of the "Three Sisters".

Time rolls on but travellers through the ages respond similarly to a given scene.

In 1874, the Northwest Mounted Police established Fort Calgary at "Mowkinits", the Elbow. There, they found Sam Livingstone, that philosophic bearded nomad, who immediately decamped in their favour, to the vicinity of the present Sarcee Reserve where he raised some very large cabbages. By virtue of this horticultural feat, he became our first agricultural "expert" and as such was once sent to Ontario to proclaim the wonders of the land among the agronomists of Bruce County.

Following the signing of Treaty No. 7, the Blackfeet were soon rendered more tractable by advice of Colonel McLeod, their Chief Crowfoot, and the disappearance of their commissary, the buffalo. Fred Kanouse's little fort near where the County Club now stands, rotted away. The bones of the Bloods killed there on a sunny afternoon in 1874 when White Eagle quarrelled with Kanouse, mouldered away in the long grass. The railroad came and the cowmen turned their big herds loose on the hills above Cochrane after the long drive from Montana. The Blackfeet, starving, decimated by smallpox and debauched by alcohol, were too spiritless to molest them. The close knit Stonies were content in their vast foothills; the Sarcees too few; the cattle grazed unmolested in the buffalo grass. Cow punchers in smoothfork saddles assailed the "bright lights" of the infant Calgary in search of relaxation in the same square mile where painted Blackfeet on bare-back ponies made the minions of the American Fur Company wonder why they had ever left the Missouri.

The black powder smoke from the pistols of the roistering punchers was soon replaced by the haze from "skunk-wagons". A great hotel was raised within view of Thompson's and Palliser's camps. Stephen Avenue became Eighth Avenue and the travois trail up the Bow, gave way to a stage road, the railroad and finally, a highway. The re-routing of this highway is currently being contested, successfully, by the staunch Stonies.

Boys in kahki shorts, camp each summer under Yamnuska, "the rock wall", and play at pioneering on the meadows where men lost their hair under the Blackfoot knife establishing empire trade in a valley far from home. This year, David Bearpaw, born in a buffalo hide teepee, died in a white bed and was interred in the same valley where his people in earlier times, were laid to rest under the sun in limbs of a great cottonwood.

The Bow tumbles out through the Gap as ever and no doubt, historians a century or so hence will add to this tale by describing how young ladies who transcribed hieroglyphics onto primitive writing machines for men who studied rocks, made a perilous excursion up this valley in rickety vehicles called "busses" and regaled only by fried chicken and beer, endeavoured to learn in one day what had occurred thereabouts since the beginning of time.

With that ponderous sentence, we close, thanking you for being assured of a niche in posterity by this appearance in your pages.

("Moon Eagle")

Pita-Keesoon.

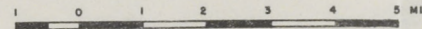
Map compiled by D.B. Layer and S.R.L. Harding;
Imperial Oil Limited, and L.M. Clark, Seaboard
Oil Company of Delaware.

A.A.P.G. Regional Meeting - Banff, Alberta.
Sept. 5-8, 1950.

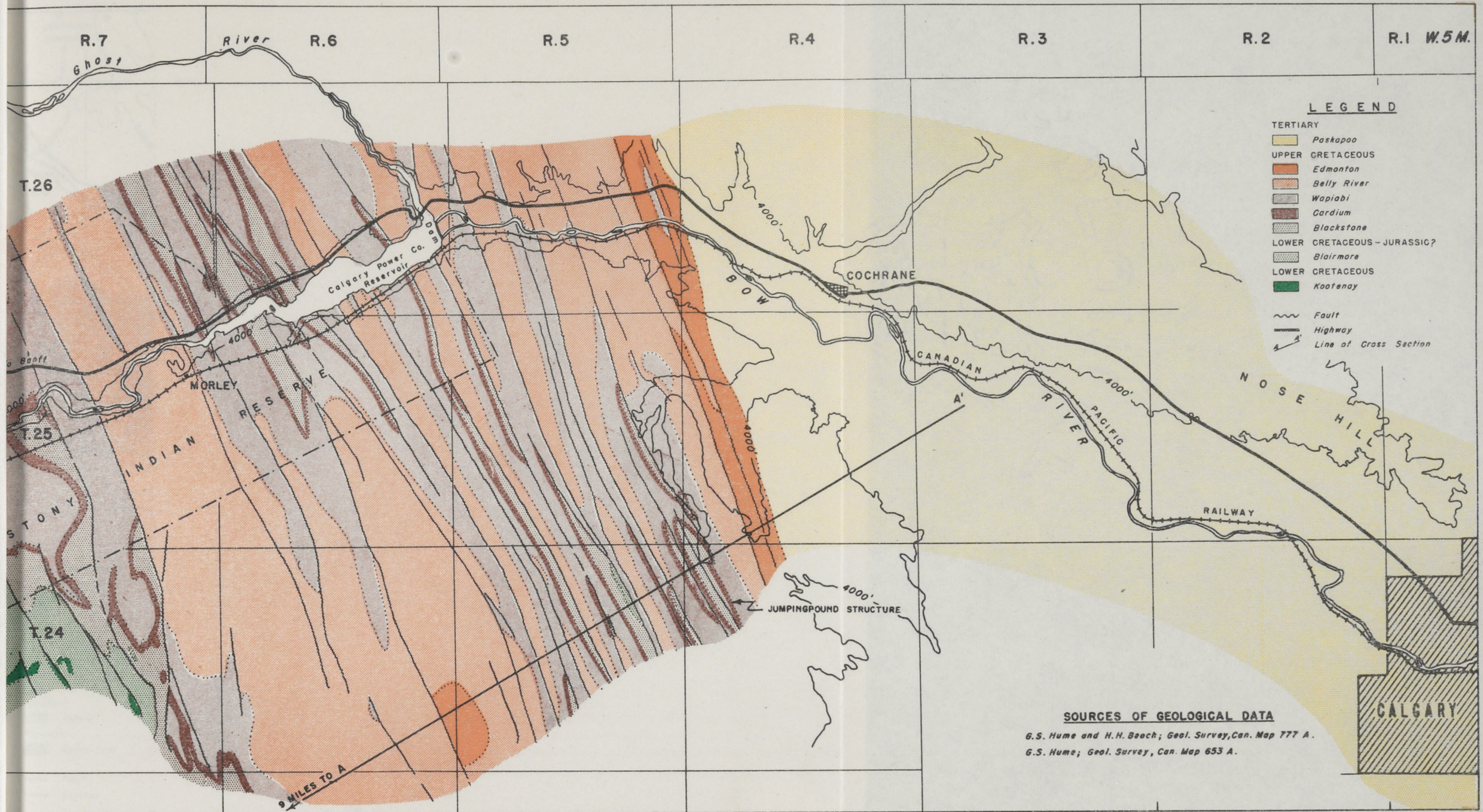
COCHRANE AREA, ALBERTA

GEOLOGY ADJACENT TO HIGHWAY No. 2 BETWEEN CALGARY & MORLEY

Scale, 1 inch to 3 Miles



Map printed by courtesy of
"DAILY OIL BULLETIN"
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LEGEND

- TERTIARY**
- Paskapoo
 - UPPER CRETACEOUS**
 - Edmonton
 - Belly River
 - Wapiabi
 - Gordion
 - Blackstone
 - LOWER CRETACEOUS - JURASSIC?**
 - Blairmore
 - LOWER CRETACEOUS**
 - Kootenay

- Fault
- Highway
- Line of Cross Section

SOURCES OF GEOLOGICAL DATA

G.S. Hume and H.H. Beach; Geol. Survey, Can. Map 777 A.
G.S. Hume; Geol. Survey, Can. Map 653 A.

*A.A.P.G. Regional Meeting - Banff, Alberta.
Sept. 5-8, 1950.*

GEOLOGY ADJACENT TO HIGHWAY No. 2 BETWEEN
SEEBE & JOHNSTON CANYON

A C.O. NICKLE PUBLICATION

Scale, 1 inch to 3 Miles

